

B58
Borg-Warner Automotive (Canada) Ltd.

Simcoe, Ontario

"Borg-Warner Automotive is always under pressure to cut costs and reduce prices. We also are conscious of the need to conserve non-renewable natural resources for future generations. An analysis of our plant in 1993, conducted with the assistance of the ministry, helped us to identify a number of areas where energy efficiency could be improved and money saved."

Roger Archibald
Plant Manager
Borg-Warner Automotive (Canada) Ltd.

THE COMPANY

Borg-Warner Automotive is a leading supplier of highly engineered components and systems which are used primarily in the manufacture of automotive drivetrains. The company has manufacturing plants in nine countries serving the North American, European and Asian markets.

Its subsidiary, BWA (Canada) Ltd., manufactures Morse timing chains and Hy-Vo drive chains for the North American market at a plant in Simcoe, Ontario.

THE CHALLENGE

In 1993, BWA set out to reduce its energy consumption and save money. Metatech Associates was contracted to review the company's operations.

Metatech made a number of suggestions. One of the easiest to carry out was to use the waste heat from the heat treating furnaces, which was vented inside the plant, to reduce the building's heating requirements and improve air quality for employees.

OPPORTUNITIES

By installing two fans and a tubing distribution system, the hot air at the ceiling could be mixed with fresh out-



The Simcoe plant of Borg-Warner Automotive.

side air and distributed to the floor level of the factory where the employees work. This would improve the building's air quality and reduce the consumption of natural gas for heating.

ACTION TAKEN

BWA installed two power tube fans on the roof of the building and 60 metres of flexible tubing 76.2 centimetres in diameter along the ceiling.

RESULTS

The new system has been used for two winters with good results. Air quality and temperature uniformity in the building have improved and the system has already paid for itself in energy savings.

REPLICATION OPPORTUNITIES

This type of low cost system for saving waste heat may be practical where process equipment exhausts heat into a plant or directly outside.

PARTNERSHIP IN POLLUTION PREVENTION AND RESOURCE CONSERVATION

Industrial companies doing business in Ontario may seek ministry/industry services that will help them to:

- * use energy and water more efficiently;
- * reduce, reuse and recycle solid waste;
- * reduce or eliminate liquid effluents and gaseous emissions.

Equipment and service supply companies can benefit from the information provided on technologies identified for business development.

Copyright Provisions and Restrictions on Copying:

This Ontario Ministry of the Environment work is protected by Crown copyright (unless otherwise indicated), which is held by the Queen's Printer for Ontario. It may be reproduced for non-commercial purposes if credit is given and Crown copyright is acknowledged.

It may not be reproduced, in all or in part, for any commercial purpose except under a licence from the Queen's Printer for Ontario.

For information on reproducing Government of Ontario works, please contact ServiceOntario Publications at copyright@ontario.ca

**FOR FURTHER INFORMATION,
PLEASE CONTACT:**

John Short
BWA (Canada) Ltd.
385 2nd Ave.
Simcoe, Ontario
N3Y 4L5
Tel: (519) 426-4960
Fax: (519) 426-8210

J. Allen Germain
Metatech Associates
650 Castleguard
Burlington, Ontario
L7N 2W6
Tel: (905) 639-0766
Fax: (905) 637-9879

Tom Markowitz,
Industry Conservation Branch
Ministry of the Environment
2 St. Clair Ave. W., 14th Floor
Toronto, Ontario
M4V 1L5
Tel: (416) 327-1443
Fax: (416) 327-1261
E-mail: markowit@ene.gov.on.ca

**MINISTRY OF THE
ENVIRONMENT SERVICES**

For information on Ministry of the
Environment assistance to industry,
please contact the Industry
Conservation Branch at
(416) 327-1492, Fax (416) 327-1261.

For more project profiles and other
publications, visit the ministry's website
at <http://www.ene.gov.on.ca>

This project profile was prepared and published as a public service by the Ontario Ministry of the Environment. Its purpose is to transfer information to Ontario companies about findings and recommendations of a resource conservation and environmental analysis conducted by a consulting engineering firm at an industrial plant in Ontario.

Publication of this project profile does not imply product endorsement. The ministry does not warrant the accuracy of contents and cannot guarantee or assume any liability for the effectiveness or economic benefits of the recommendations or the technologies described herein or that their use does not infringe privately owned rights.

In addition, the ministry cannot be held liable for any injury or damage to any person or property as a result of the implementation of any part of this profile.

Pour tout renseignement en français au sujet du programme d'écologisation industrielle du Ministère de l'Environnement, veuillez composer le 416-327-1253, télécopieur 416-327-1261.

